

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE REPLACEMENT OF EXISTING VEHICULAR TRAFFIC SIGNAL HEADS ON THE EXISTING SIGNAL MAST ARMS AND THE REPLACEMENT OF THE EXISTING PEDESTRIAN SIGNALS AND PUSHBUTTONS WITH NEW APS/CPS ASSEMBLIES ON PEDESTRIAN PEDESTAL POLES FOR THE SOUTH LEG CROSSING OF US 1 (SECOND STREET). US 1 IS ASSUMED TO RUN IN THE NORTH - SOUTH DIRECTION.

II. INTERSECTION OPERATION

THE EXISTING THREE-PHASE OPERATION AT THE INTERSECTION WILL REMAIN WITH PHASES 4 AND 8 RUNNING CONCURRENTLY.

III. CONTROLLER REQUIREMENTS

USE EXISTING CONTROLLER. INSTALL NEW 2-WIRE CENTRAL CONTROL UNIT FOR APS.

SPECIAL NOTES

APS WILL FUNCTION AS FOLLOWS:

- A. FOR US 1 (SECOND STREET) WHEN THE PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE: "WAIT TO CROSS SECOND AT BOWIE WAIT"
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

EQUIPMENT LIST 'B'

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	CAT CODE	QUANTITY	DESCRIPTION
2003	203030	1 CY	TEST PIT EXCAVATION
8001	800000	2 EA	16 INCH LED PEDESTRIAN COUNTDOWN SIGNAL HEAD
8002	800000	2 EA	AUDIBLE TACTILE PEDESTRIAN PUSH BUTTON AND SIGN ASSEMBLY
8003	800000	1 EA	2 WIRE CENTRAL CONTROL UNIT (FOR APS BUTTON)
8004	800000	1 LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
8005	801004	1 CY	CONCRETE FOR SIGNAL FOUNDATION
8008	801607	2 SF	INSTALL SHEET ALUMINUM SIGN
8009	802145	2 EA	ADJUST EXISTING HANDHOLE
8010	802501	65 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8011	805135	65 LF	3 INCH SCHEDULE 80 PVC CONDUIT - TRENCHED
8014	818004	2 EA	10 FOOT BREAKAWAY PEDESTAL POLE
8015	837001	2 EA	GROUND ROD - 3/4" DIAMETER X 10' LENGTH
8016	860284	18 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8017	861105	335 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8018	861107	410 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8019	861108	340 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

C. IF THE CABINET IS TO BE REMOVED SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASE CHART

	1	2	3	4	5	6	7	8	
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	
PHASE 6	G	G	R	R	R	R	DW	DW	
6 CHANGE	Y	Y	R	R	R	R	DW	DW	
PHASE 4 & 8	R	R	G	G	G	G	DW	DW	
4 & 8 CHANGE	R	R	Y	Y	Y	Y	DW	DW	
4 & 8 ALT.	R	R	G	G	G	G	WK	WK	
PED. CLEAR	R	R	G	G	G	G	FL/DW	FL/DW	
4 & 8 ALT. CHANGE	R	R	Y	Y	Y	Y	DW	DW	
PRE-EMPTION #1	R	R	G	G	R	R	DW	DW	
CHANGE	R	R	Y	Y	R	R	DW	DW	
PRE-EMPTION #2	G	G	R	R	R	R	DW	DW	
CHANGE	Y	Y	R	R	R	R	DW	DW	
FLASHING OPERATION	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	

NOTE: NO CHANGE TO EXISTING OPERATION

CONTACTS

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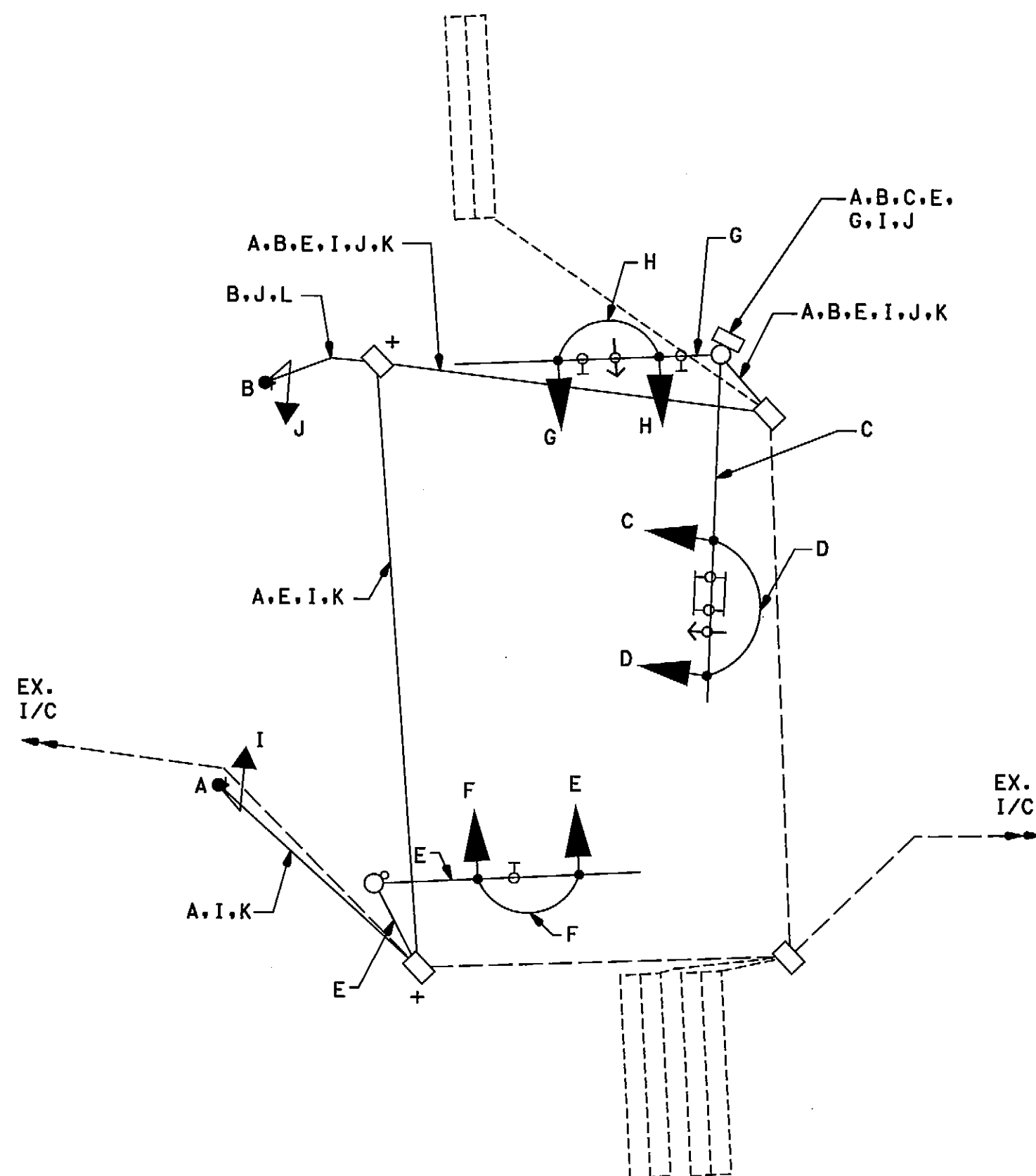
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WIRING DIAGRAM



WIRING LEGEND

- A,B 2 - CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D,F, H,I,J 5 - CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- C,E,G 7 - CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- K,L STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- + GROUND ROD

EQUIPMENT LIST 'A'

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

CAT CODE	QUANTITY	DESCRIPTION
933012	2 SF	SHEET ALUMINUM SIGNS 2 EA - R10-3(1) (9"x15")



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

**NORTHBOUND US 1 (SECOND STREET)  
AT BOWIE ROAD  
LAUREL, MD**

GENERAL INFORMATION SHEET

SCALE NOT TO SCALE DATE AUG 2010 CONTRACT NO. PG65355130

DESIGNED BY GNC COUNTY PRINCE GEORGE'S

DRAWN BY GNC LOGMILE 16000113.40

CHECKED BY JLR T.I.M.S. NO. J839

F.A.P. NO. SEE TITLE SHEET TOD NO.

DRAWING NO. TS-1631E SG-02 OF 02 SHEET NO. 10 OF 10



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PLOTTED: Wednesday, September 29, 2010 AT 04:04 PM  
FILE: M:\PROJ\200515\13\WMA-SUBMITTALS\2010-09-20 - PS&E Signal\10 psg-N001\_US1.dgn